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Monsanto

Monsanto Chemical Company 800 N. Lindbergh Boulevard St. Ebuis, Missouri 63167 Phone (314) 694-1000

December 3, 1991

CONFIDENTIAL

Mr. Michael P. Long
Director of Business Development
Perland Environmental Technologies, Inc.
8 New England Executive Park
Burlington, Massachusetts 01803

Subject: Dead Creek Project Work

Dear Mr. Long:

Monsanto is considering the possible removal of certain sediment from specific areas of the Dead Creek Project Site (designated such by the Illinois Environmental Protection Agency) at Sauget, Illinois. The intended scope of work dated October 30, 1991 is attached to this memo. To assist in your understanding of the program, I have attached a copy of "A Preliminary Hydrogeologic Investigation in the Northern Portion of Dead Creek and Vicinity" dated April, 1981. Your company is requested to participate in a review of the scope of work as well as a discussion of the challenge related to methods and logistics. Mr. Gordon Grundman, Project Manager, will contact you shortly to arrange for the meeting. His contact data:

Mr. Gordon Grundmann - F3WB Monsanto Company 800 North Lindbergh Blvd. St. Louis, Missouri 63167 (314) 694-6112 FAX 314-694-6957

Following the review and subsequent communications, your company may be invited to submit a proposal for the subject work. It is expected that a lump sum proposal would be requested, perhaps with some extendable unit rates to cover the expected variations in quantities.

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Perland Environmental Technologies, Inc. December 3, 1991 Page 2

Your company has signed a Confidentiality Agreement dated December 3, 1991 which is intended to cover all aspects of communications, data and written documents which may be exchanged during the conduct of our program development and through to project award. It is important you communicate the confidentiality provisions to your personnel.

We look forward to working with your company on this challenging project.

Yours truly,

J. P. Pritsch

Manager, Contracts and Contract Administration

JFF:mm Attachment

bcc: Steve Smith w/scope of work
Gordon Grundmann- w/scope of work
Ken Winkler w/scope of work
Alan Faust w/scope of work

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PRELIMINARY SCOPE OF WORK

DEAD CREEK PROJECT SITES

SAUGET, ILLINOIS

Introduction

This Preliminary Scope of Work is related to two sites: the Creek Project Sector designated in attached Figure 1 and Site "M", which are part of the Dead Creek Project Sites and identified as such by the Illinois Environmental Protection Agency (IEPA).

A voluntary cleanup is being considered to remove and dispose of accumulated creek sediment from the bottom and sides of the designated areas. These sediments may be affected by organic compounds and metals.

Existing Site Information

The sites for this project are located within the Dead Creek Project (DCP) sites as referred to by the IEPA. They are located in the towns of Sauget and Cahokia in St. Clair County, Illinois, and are located directly across the river from St. Louis, Missouri.

Dead Creek at one time ran towards the south and southwest through the Illinois towns of Sauget and Cahokia. The IEPA has divided Dead Creek into 6 segments for ease of identification. This project is concerned with only the designated Creek Project sector. This sector runs parallel to Falling Springs Road and is located between New Queeny Avenue and Judith Lane. The Creek Project Sector is approximately 1,600 feet long and is currently enclosed by a chain link fence. Dead creek is not a free-flowing stream in this sector since the culverts at both the north and south ends have been blocked. As a result, the only sources of water for the project sector are rainwater or groundwater. Normally, most of the creekbed is not under water.

Site M is adjacent to the creek portion of the project and is located on its east side near the southern portion of the Creek Project Sector. Site M was a sand pit which was excavated in the 1940s. The dimensions of the pit are approximately 275 feet x 350 feet. This pit is presently full of water and has an estimated depth of 15-30 feet. It is anticipated at this time that there is only a small amount of sediment on the bottom of this pit.

A study is currently in progress to characterize the conditions at both project sites by determining the nature, extent and volume of the sediment that is present. The excavated sediment materials will be landfilled at an approved hazardous waste landfill.

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Scope of Work

- Overall. Excavate the sediment from the Creek Project Sector and Site M, dewater same on site, load, transport material to an approved waste disposal site and dispose of the material.
- 2. Excavation. Excavation of the sediment will be required for both of the sites. It is estimated that approximately 2 feet of sediment will be removed from Creek Project Sector. This area of removal will be approximately 20 feet wide and up to 1,600 feet long with an estimated quantity of approximately 4,000 tons of material. It is not expected that removal will be required from the steep sides of the creek. The quantity for site M has not been estimated at this time. Sediment excavation will be directed by a Representative familiar with the physical characteristics (color, texture, and consolidation) that distinguish the creek sediment from the underlying soils.
 - 3. Dewatering. The sediment materials will need to be dewatered such that they can pass a paint filter test prior to being transported to the disposal site. It is anticipated that the dewatering can be accomplished by stockpiling the sediment and allowing subsequent gravity flow. These waters, as well as rainwater that accumulates in the creek, must be pumped to a designated portion of the creek. The contractor will be responsible for meeting regulations covering the solids transport and disposal process.
 - 4. Site Logistics. The contractor will be responsible for all site logistics for soil removal, inventory, analysis, loading and transport which minimizes the overall program cost. Challenges would include segregation of sediments from surrounding soils so as to minimize mixing. The sediment removal strategy and tools must also be planned with the view to minimizing impact of soil droppings/sloughing and movement of residual water.

The sites are enclosed by a chain link fence. Access to the creek must be restricted to the public at all times during the project. Judith Lane is a relatively narrow street, and it may not be ideally usable for heavy truck traffic for a long period of time. In addition, New Queeny Avenue is also narrow and may be of limited use for heavy truck traffic. The installation of a roadway into the site from Falling Springs Road or even Illinois Route 3 is under review by others, but it will be an important premise for the contractor's plan.

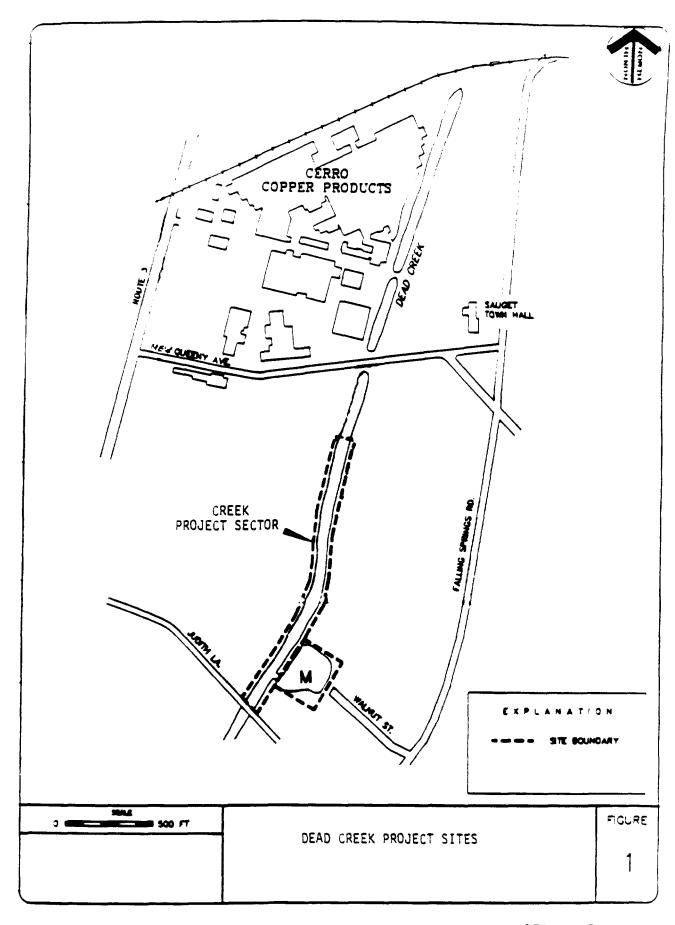
- 5. Loading and Transportation. After the sediment materials have been properly dewatered, they will need to be loaded into vehicles for transporting to the approved disposal site.
- 6. Backfilling. It is necessary to backfill the areas where sediment has been removed from the Creek Project Sector with approximately two feet of compacted, clean clay materials to replace that removed in item 2, above. For site M the banks and work-damaged areas will be renewed with clean soil and seeded.

CER 007503

Ancillary Information

- Oversight. The state will have personnel on site for most of the duration of this project to observe its execution. The contractor must ensure that all state, local or other requirements that may apply be met.
- Workplan. It is necessary to generate the workplans in format and extent required by the EPA, i.e. the Quality Assurance Project Plan (QAPP) and the Health and Safety Plan (HASP).
- 3. Schedule. Mobilization by the contractor in the field would start in mid-February, 1992. Excavation work could start as soon thereafter as possible. The targeted completion date for placement in the disposal site is May 8, 1992. Backfilling could occur for some period after the excavation has been completed.
- 4. Other. The contractor will be responsible for site security, conformance to all applicable safety and industrial standards/regulations, QA/QC related to the work, and interface with the IEPA Representative. A contract will be required which includes insurance for contractual liability and environmental impairment.
- 5. Organization. The contractor will be responsible for performing the Work in conformance with the agreed design. It is expected that a Representative will be resident at site for interface with the contractor.

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